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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/464,997	12/16/1999	LOU W. WATKINS	4642	8340

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EXAMINER
BAREFORD, KATHERINE A

ART UNIT	PAPER NUMBER
1762	19

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

mk-19

Office Action Summary	Application No.	Applicant(s)	
	09/464,997	WATKINS, LOU W.	
	Examiner	Art Unit	
	Katherine A. Bareford	1762	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,5,8-10,12,18 and 19* is/are rejected.

7)☒ Claim(s) *20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The amendment of Feb. 26, 2003 has been received and entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 18 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This new claim indicates that the foam insulation is applied to "a length of rigid metallic pipe" (see lines 1, 4 and 6). The specification provides support for applying foam insulation to a steel pipe (see page 4, line 21). However, the disclosure as originally filed does not provide support for a "metallic" pipe other than a steel pipe and the disclosure as originally filed does not provide support for a "rigid" pipe. Therefore, the use of the "rigid metallic pipe" as claimed is new matter.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, line 1, this claim (as amended on Jan. 23, 2002) depends from claim 2. However, claim 2 was canceled by the same amendment. As a result, the claim depends from a canceled claim. For the purposes of examination, the Examiner has treated the claim as depending from claim 1.

In the amendment of Feb. 26, 2003, in the REMARKS section (see page 3), applicant has indicated that claim 5 has been amended to depend from claim 1. However, in the entered clean copy of claim 5 (see page 2 of the amendment), the claim still depends from claim 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 8-9, 12 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 380 163 A2 (hereinafter '163) in view of DE 2 803 708 (hereinafter '708).

'163 teaches a method of applying syntactic foam insulation to a length of pipe. Column 1, line 30 through column 4, line 10. An inner syntactic foam insulator and an outer protective

cover are co-extruded around the length of pipe. Column 2, lines 2-20 and column 3, lines 5-45 and figures 3-4. The cover is rapidly solidified. Column 3, lines 35-45. This retains the foam in a desired shape about the length of pipe. Column 3, lines 35-45 and figures 3-4. The pipe can be steel. See column 5, lines 1-5.

Claim 9: '163 teaches a method of applying syntactic foam insulation to a length of pipe. Column 1, line 30 through column 4, line 10. An inner syntactic foam insulator and an outer protective cover are co-extruded around the length of pipe. Column 2, lines 2-20 and column 3, lines 5-45 and figures 3-4. The cover is rapidly solidified. Column 3, lines 35-45. This retains the foam in a desired shape about the length of pipe. Column 3, lines 35-45 and figures 3-4.

Claim 18: the pipe of steel would be a rigid metallic pipe. See column 5, lines 1-10.

Claim 19: the foam insulation provides a thermal insulation layer for the pipe even at elevated temperatures. See column 2, lines 45-55. As a result, the product pipe can be "re-heated" during use, providing a "re-heated insulating product" (since the claim provides no lower limit to the amount of heat that can be applied for "re-heating").

'163 teaches all the features of these claims except (1) the thermoplastic resin and (2) the air cooling (claims 8 and 12).

However, '708 teaches a method of applying a foam insulation to a length of pipe. See the abstract. An inner foam insulating and an outer protective cover are co-extruded around a length of pipe. Abstract and figures 1-3. The layers retain a desired shape about the length of pipe. Abstract and figures 1-3. The cover layer is a thermoplastic. Abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '163 to use a thermoplastic cover layer as suggested by '708 with an expectation of desirable produced pipe, because '163 teaches forming a three layer pipe with an inner layer, a foam intermediate layer and an outer layer by extrusion, and '708 teaches that when forming a three layer pipe with an inner layer, a foam intermediate insulation layer, and an outer layer using a co-extrusion process, it is conventionally known to use a thermoplastic outer layer. It would further have been obvious to provide air cooling with an expectation of desirable solidification, because, at the least, if no other form of cooling was specifically used, the air contact after extrusion would allow the product to cool.

8. Claims 1, 8-9, 12 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 380 163 A2 (hereinafter '163) in view of Japan 62-28222 (hereinafter '222).

'163 teaches a method of applying syntactic foam insulation to a length of pipe. Column 1, line 30 through column 4, line 10. An inner syntactic foam insulator and an outer protective cover are co-extruded around the length of pipe. Column 2, lines 2-20 and column 3, lines 5-45 and figures 3-4. The cover is rapidly solidified. Column 3, lines 35-45. This retains the foam in a desired shape about the length of pipe. Column 3, lines 35-45 and figures 3-4. The pipe can be made from steel. Column 5, lines 1-10.

Claim 9: '163 teaches a method of applying syntactic foam insulation to a length of pipe. Column 1, line 30 through column 4, line 10. An inner syntactic foam insulator and an outer protective cover are co-extruded around the length of pipe. Column 2, lines 2-20 and column 3,

lines 5-45 and figures 3-4. The cover is rapidly solidified. Column 3, lines 35-45. This retains the foam in a desired shape about the length of pipe. Column 3, lines 35-45 and figures 3-4.

Claim 18: the pipe of steel would be a rigid metallic pipe. See column 5, lines 1-10.

Claim 19: the foam insulation provides a thermal insulation layer for the pipe even at elevated temperatures. See column 2, lines 45-55. As a result, the product pipe can be "re-heated" during use, providing a "re-heated insulating product" (since the claim provides no lower limit to the amount of heat that can be applied for "re-heating").

'163 teaches all the features of these claims except (1) the thermoplastic resin and (2) the air cooling (claims 8 and 12).

However, '222 teaches a method of applying a foam insulation to a length of pipe. See the abstract. An inner foam insulating and an outer protective cover are co-extruded around a simultaneously extruded length of pipe. Abstract and figures 1-3. The layers retain a desired shape about the length of pipe. Abstract and figures 1-3. The cover layer is a thermoplastic. Abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '163 to use a thermoplastic cover layer as suggested by '222 with an expectation of desirable produced pipe, because '163 teaches forming a three layer pipe with an inner layer, a foam intermediate layer and an outer layer by extrusion, and '222 teaches that when forming a three layer pipe with an inner layer, a foam intermediate insulation layer, and an outer layer using a co-extrusion process, it is conventionally known to use a thermoplastic outer layer. It would further have been obvious to provide air cooling with an expectation of desirable solidification,

because, at the least, if no other form of cooling was specifically used, the air contact after extrusion would allow the product to cool.

9. Claims 4-5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 380 163 A2 (hereinafter '163) in view of DE 2 803 708 (hereinafter '708) as applied to claims 1, 8-9, 12 and 18-19 above, and further in view of Francis (US 4773448).

'163 in view of '708 teach all the features of these claims except the water bath cooling.

However, Francis teaches a method of making a plastic pipe with a hard outer shell and an inner foam layer. Column 2, lines 5-45. Francis teaches cooling the pipe with a water bath to solidify the pipe after extrusion. Column 2, lines 25-35.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '163 in view of '708 to use water bath cooling as suggested by Francis with an expectation desirable quick cooling, because '163 in view of '708 teaches forming a multilayer pipe by extrusion and cooling, and Francis teaches that when forming a multilayer pipe by extrusion, it is conventionally known to desirably use a water bath to cool the extruded material.

10. Claims 4-5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 380 163 A2 (hereinafter '163) in view of Japan 62-28222 (hereinafter '222) as applied to claims 1, 8-9, 12 and 18-19 above, and further in view of Francis (US 4773448).

'163 in view of '222 teach all the features of these claims except the water bath cooling.

However, Francis teaches a method of making a plastic pipe with a hard outer shell and an inner foam layer. Column 2, lines 5-45. Francis teaches cooling the pipe with a water bath to solidify the pipe after extrusion. Column 2, lines 25-35.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '163 in view of '222 to use water bath cooling as suggested by Francis with an expectation desirable quick cooling, because '163 in view of '222 teaches forming a multilayer pipe by extrusion and cooling, and Francis teaches that when forming a multilayer pipe by extrusion, it is conventionally known to desirably use a water bath to cool the extruded material.

Allowable Subject Matter

11. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The cited prior art does not teach or suggest, alone or in combination, at the formed insulation product can be further re-heated and placed into a mold for reshaping.

Response to Arguments

12. Applicant's arguments filed Feb. 26, 2003 have been fully considered but they are not persuasive.

Applicant's Arguments

As to the rejection of claims 1, 8-9, 12 and 18-19 using '163 in view of '708, applicant argues that '708 discloses producing a flexible laminated insulating pipe, while claim 1 now requires a steel pipe, which is rigid and not flexible as in '708. Thus, a person working in the field of the present invention, would not look to the field of the '708 application, since it relates to flexible insulated plastic tubing, rather than insulated pipelines using a rigid pipe. Applicant goes on to argue that there is no proper motivation to combine the refereces. As to claim 9, applicant argues that it is patentable for the reasons as claim 1. As to claim 19, applicant argues that the references also do not disclose the claimed "reheating the insulating product and insulating a pipe with the reheated insulating product".

As to the rejection of claims 1, 8-9, 12 and 18-19 using '163 in view of '222, applicant argues that in '222 the materials are all extruded to make a pipe, not extruded around a pipe as in the claims. '222 is not related to the field of syntactic foam insulated pipelines, but rather to the field of non-syntactic foam with inner and outer thermoplastic layers. Therefore, according to applicant, one of ordinary skill in the art working in the field of syntactic foam insulated pipelines would not be motivated to combine the subject matter of '163 and '222.

As to claims 4-5 and 10, applicant argues that these rejections are moot, since parent claims 1 and 9 are patentable for the reasons given above.

The Examiner's Response

As to claims 1, 8-9, 12 and 18-19 as rejected using '163 in view of '708, the Examiner has reviewed applicant's arguments. However, the rejection is maintained. As to claims 1 and 18, the Examiner notes that the primary reference, '163, teaches that the pipeline material is

steel (see the rejection above). Furthermore, it is the Examiner's position that while '708 teaches the formation of a flexible pipe, it would have been obvious to look to the art of '708. In other words, applicant has been arguing that '708 is nonanalogous art. However, as to this nonanalogous argument, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the reference to '708 is at the least, reasonably pertinent to the particular problem with which the applicant was concerned. Applicant, '163 and '708 are all concerned with providing a protective layer over a foam insulating layer when forming a insulating pipe. '163, for example, is concerned with forming an "annular thermal insulation layer" (the foam layer) and a "protective sleeve" (the top layer) "around a pipeline in a single operation and in a continuous manner" (see column 1, lines 40-45). '708 is also concerned with forming an outer pipe layer and a layer of plastics foam insulation between the outer pipe layer and inner pipe layer in one continuous operation (see the abstract). These correspond to the desire of applicant (as shown in the specification, at page 1, lines 10-15, for example). As a result, one of ordinary skill in the art would find it reasonable to look to the art of '708 as well as the art of '163 to solve the problem of applicant. Upon looking at the art, it would have been obvious to one of ordinary skill in the art to combine the references so as to use a thermoplastic cover layer as suggested by '708 so as to provide a desirable cover layer for a pipe with a layer of insulating foam. As to claim 9, the rejection is maintained for the same reasons. As to claim 19, the Examiner notes that '163

suggests that such a pipe will be subject to elevated temperatures and, thus, reheated to the extent claimed. Claim 19 as worded does not require insulating a pipe with the reheated insulated product.

As to claims 1, 8-9, 12 and 18-19 as rejected using '163 in view of '222, the Examiner has reviewed applicant's arguments. However, the rejection is maintained. As to claims 1 and 18, the Examiner notes that the primary reference, '163, teaches that the pipeline material is extruded around a length of steel pipe (see the rejection above). Applicant argues that in '222 the formation of a pipe formed by extruding three materials, not extruding around a pipe and does not teach the use of syntactic foam materials, and thus it would not have been obvious to look to the art of '222. In other words, applicant has been arguing that '222 is nonanalogous art. However, as to this nonanalogous argument, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the reference to '222 is at the least, reasonably pertinent to the particular problem with which the applicant was concerned. Applicant, '163 and '222 are all concerned with providing a protective layer over a foam insulating layer when forming a insulating pipe. '163, for example, is concerned with forming an "annular thermal insulation layer" (the foam layer) and a "protective sleeve" (the top layer) "around a pipeline in a single operation and in a continuous manner" (see column 1, lines 40-45). '222 is also concerned with forming an outer pipe layer and a layer of plastics foam insulation between the outer pipe layer and inner pipe layer

in one continuous operation (see the abstract). While in '222 the inner pipe layer is formed as part of the overall extruding process, the concern is still to form an outer pipe layer and a layer of plastics foam insulation between the outer pipe layer and inner pipe layer. These correspond to the desire of applicant (as shown in the specification, at page 1, lines 10-15, for example). As a result, one of ordinary skill in the art would find it reasonable to look to the art of '222 as well as the art of '163 to solve the problem of applicant. Upon looking at the art, it would have been obvious to one of ordinary skill in the art to combine the references so as to use a thermoplastic cover layer as suggested by '222 so as to provide a desirable cover layer for a pipe with a layer of insulating foam. As to claim 9, the rejection is maintained for the same reasons. As to claim 19, the Examiner notes that '163 suggests that such a pipe will be subject to elevated temperatures and, thus, reheated to the extent claimed. Claim 19 as worded does not require insulating a pipe with the reheated insulated product.

As to claims 4-5 and 10, the rejection is maintained because the rejection of the parent claims 1 and 9 are maintained, and no separate arguments as to the patentability claims 4-5 and 10 have been made.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (703) 308-0078. The examiner can normally be reached on M-F(7:00-4:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310~~9310~~ for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

KATHERINE A. BAREFORD
PRIMARY EXAMINER
GROUP ~~1100~~ 1700